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MEMORANDUM

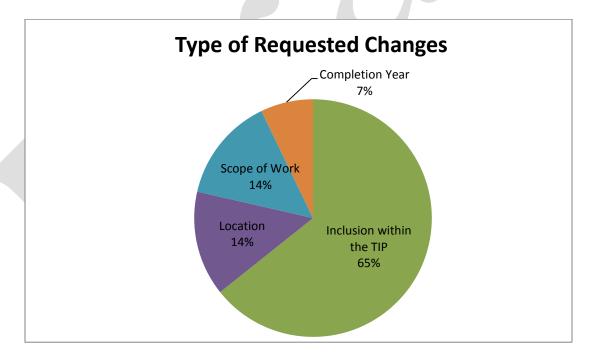
To: Transportation Committee

Date: July 26, 2013

From: CMAP Staff

Re: Semi-annual GO TO 2040/TIP Conformity Analysis & TIP Amendments

In accordance with the biannual conformity analysis policy, CMAP staff asked programmers to submit changes to projects included in the regional air quality analysis of the Transportation Improvement Program (TIP) and GO TO 2040. Of the numerous changes requested, fourteen (14) projects require air quality conformity analysis. Below is a summary of the types of requested changes.



If the TIP amendments are approved, nine new non-exempt projects will be included in the TIP. These projects are included in the conformity analysis because funding for phases beyond preliminary engineering has been identified in the TIP. These projects are moving closer to construction. Preliminary engineering is exempt from conformity analysis. The nine new projects are:

- TIP ID 01-13-0015 Cermak Green Line Station,
- TIP ID <u>08-95-0024</u> IL 83 Kingery Highway from 31st to south of I-55 Stevenson Expressway,
- TIP ID 10-02-0013 US 45 Milwaukee Avenue from IL 60 Townline Road to IL 22,

- TIP ID 11-06-0018 IL 47 from Charles Road to US 14,
- TIP ID 11-07-0014 IL 47 Eastwood Drive from US 14 to Reed Road,
- TIP ID 12-07-0005 Weber Road from 119th Street to 135th Street,
- TIP ID 12-10-0008 143rd Street from State Street / Lemont Road to Bell Road,
- TIP ID <u>12-12-0033</u> Weber Road from 135th Street to Airport Road / Lockport Road.
- TIP ID 12-02-9024 Illiana Corridor Project from I-55 to I-65

Scope changes have been requested for two existing projects. The scope of a project is determined by the <u>work type</u> included in the project.

- Non-exempt work types may affect air quality and must be tested for conformity. Examples of non-exempt work types are adding lanes to a road, signal timing and extending a rail line.
- Exempt tested work types do not require an air quality conformity analysis, but the region has chosen to include the impacts of the work types in the travel demand model. Exempt tested projects include new commuter parking lots and road lane widening to standard (e.g., 10 feet to 12 feet).
- Exempt work types do not require an air quality conformity analysis. Examples of exempt work types are road resurfacing and bus rehabilitation.

The two projects for which scope changes have been requested are:

- TIP ID <u>03-96-0021</u> Elgin-O'Hare East Extension, Add Lanes & Western O'Hare Bypass. The sponsor has requested addition of new non-exempt work types including new and expanding interchanges, corridor improvements and intersection improvements. Additionally, a request to extend the limits from Rohlwing Rd. to Gary Rd. was received; this project was previously represented as three separate projects in the TIP.
- o TIP ID <u>07-09-0087</u> Wood Street from Little Calumet River to US 6/159th Street. The sponsor has requested a new work type for adding lanes.

Sponsors requested location changes for two existing TIP projects. These changes require a conformity amendment. Those two projects are:

- TIP ID <u>03-96-0004</u> I-90 Jane Addams Memorial Tollway from Plaza #9 Elgin to I-294 Tri-State Tollway. The sponsor requested the limits be extended to IL 43/Harlem Avenue.
- TIP ID <u>10-07-0001</u> IL 60 IL 83 from IL 176 to EJ&E railroad. The sponsor requested the limits be extended to Townline Road.

Completion years indicate when a project is anticipated to be in service to users and determines in which analysis year(s) the project will be included. The analysis years are 2015, 2025, 2030 and 2040. If a change in completion year moves across an analysis year, the project must be included in a new conformity analysis. Sponsors indicated that several projects have updated completion years, only one of those crossed an analysis year.

The sponsor's requested completion year change moves the following project from the 2030 analysis year to the 2025 analysis year:

TIP ID <u>12-10-9001</u> I-55 Managed Lanes from I-355 to I-90 I-94.

GO TO 2040 Major Capital Projects

Four GO TO 2040 Major Capital Projects are included in this report due to significant changes to location, implementation time frame and/or revised scopes. Those projects are:

• TIP ID <u>12-02-9024</u> Illiana Corridor Project from I-55 to I-65. The sponsor has requested moving funding beyond preliminary engineering into the TIP.

- TIP ID <u>03-96-0021</u> Elgin-O'Hare East Extension, Add Lanes & Western O'Hare Bypass. The sponsor has requested addition of new non-exempt work types including new and expanded interchanges, corridor improvements and intersection improvements. Additionally, a request to extend the limits from Rohlwing Rd. to Gary Rd. was received.
- TIP ID <u>03-96-0004</u> I- 90 Jane Addams Memorial Tollway from Plaza #9 Elgin. The sponsor has requested that the project limits be extended to IL 43/Harlem Avenue.
- TIP ID <u>12-10-9001</u> I-55 Managed Lanes from I-355 to I-90 I-94 the sponsor has requested moving the completion year from 2030 to 2016.

Each TIP ID includes a hyperlink to the TIP database for further project information. Changes are included in the attached report.

TIP projects are also viewable in a map format. The TIP map is available at http://www.cmap.illinois.gov/tip/tip-map.

The 2015, 2025, 2030 and 2040 highway and transit networks were coded to include the project changes listed in the "Non-Exempt Projects Requiring Conformity Determination" report. The regional travel demand model was run using the updated networks. The resultant vehicle miles traveled (VMT) by vehicle class, speed and facility type were entered into US Environmental Protection Agency's MOVES model. The model generated on-road emission estimates for each precursor or direct pollutant in each scenario year.

Two emissions tables are presented below, one for use in the conformity determination if the Illiana Corridor Project is amended into GO TO 2040 and one for use in the conformity determination if GO TO 2040 is not amended. The emissions inventories in TABLE 1 include the Illiana Corridor Project; the inventories in TABLE 2 do not. The appropriate table will be used depending on the decision of the CMAP Board and MPO Policy Committee regarding the GO TO 2040 Plan Amendment.

For both ozone precursors, the resulting emissions inventories estimates fell below the applicable maintenance SIP budgets.

As a result of discussions at Tier II Consultation, SIP budgets for annual direct PM2.5 and NOx emissions submitted by the Illinois Environmental Protection Agency to the US Environmental Protection Agency in 2011 will be used for the conformity determination. For both analyses, the annual direct PM2.5 and NOx emissions inventories are below the applicable budgets.

TABLE 1 Illiana Corridor Project Included

Direct PM2.5 and NOx Emissions in Tons per Year for PM2.5 Conformity

	Fine Particulate Matter		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	2,447.01	5,100.00	52,119.69	127,951.00
2025	1,644.16	2,377.00	29,510.58	44,224.00
2030	1,591.23	2,377.00	27,965.94	44,224.00
2040	1,683.35	2,377.00	29,276.86	44,224.00

conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

VOC and NOx Emissions in Tons per Summer Day for Ozone Conformity

	Volatile Organic Compounds		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	59.19	117.23	137.21	373.52
2025	44.39	48.13	75.27	125.27
2030	44.05	48.13	70.99	125.27
2040	47.08	48.13	74.06	125.27

conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

Notes

Off-model benefits are not included in the total emissions estimates Results updated 8/15/2013

TABLE 2
Illiana Corridor Project Not Included

Direct PM2.5 and NOx Emissions in Tons per Year for PM2.5 Conformity

	Fine Particulate Matter		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	2,447.01	5,100.00	52,119.69	127,951.00
2025	1,644.96	2,377.00	29,521.04	44,224.00
2030	1,589.46	2,377.00	27,977.57	44,224.00
2040	1,645.61	2,377.00	29,223.99	44,224.00

conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

VOC and NOx Emissions in Tons per Summer Day for Ozone Conformity

	Volatile Organic Compounds		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	59.19	117.23	137.21	373.52
2025	44.35	48.13	75.21	125.27
2030	43.94	48.13	70.94	125.27
2040	46.86	48.13	73.83	125.27

conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

Notes

Off-model benefits are not included in the total emissions estimates Results updated 8/15/2013